

REMARKS

This is in response to the Office Action dated February 22, 2010 in which claims 1, 2, 5-7, 10-17, 25 and 26 were pending and were rejected. Further, this follows an interview between Applicant's representative, Chris J. Volkmann, and Examiner Colucci conducted on May 19, 2010. Applicant respectfully thanks the Examiner for his time and consideration in conducting the interview. In view of the following, reconsideration and allowance of the application are respectfully requested.

Interview Summary

During the interview, Applicant's representative and the Examiner discussed the present application and the cited references. Applicant's representative pointed out at least several differences between Applicant's claims and the proposed combination of references. Applicant's representative and the Examiner also discussed the claim amendments presented herein. The Examiner indicated that the present amendments appear to further clarify and distinguish the claims from the cited references. The Examiner indicated that the present claim amendments likely overcome the present claim rejections. However, before committing to an official position the Examiner asked Applicant to file the present formal response. At least in view of the interview and the following, Applicant respectfully requests reconsideration and allowance of the present application.

Claim Rejections – 35 U.S.C. §103

Claims 1, 2, 5-7, 10-12, 15-17, 25 and 26 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Lisle et al. (US Patent No. 4,843,389, hereinafter Lisle) in view of Katayama et al. (US Patent No. 6,260,051, hereinafter Katayama) and in further view of Okada (US Patent No. 5,889,481) and Edberg (US Patent No. 5,873,111). Of these, claims 1, 6 and 11 are in independent form.

Aspects described in the present application involve the collation of words or symbols. Collation means the sorting of text strings (which consist of symbols) according to an order of the symbols that is culturally correct to users of that language. Collation is used when users order linguistic data or perform a search for ordered linguistic data. For example, in the United States, words are collated such that those beginning with the letter “Q” are ordered after those beginning with the letter “P”. In other languages, such as Chinese, linguistic symbols may be sorted by phonetic pronunciation or by the number of strokes in a symbols.

A compression is a special group of symbols that is treated as a single sort element. For example, in the Hungarian language, the letters “DZS” form a single sort element, as do the symbols “DZ”. These are both “compressions” as used in the present specification. The compression “DZS” is treated as a single sort element and is arranged, in collation order, before the letter “E” in the Hungarian language, but after the compression “DZ”.

The compression type of a given compression refers to the number of symbols that are grouped together as a single sort element. For instance, the compression type of the compression “DZS” is 3 (or 3-to-1). The compression type of the compression “DZ” is 2 (or 2-to-1).

The highest compression type used in a given language varies based on the given language. For instance, some languages, such as Bengali or Tibetan, use compression types as high as 8-to-1. It is therefore very difficult to perform collation because, in order to do so, the collator must first determine whether some of the symbols in an input string to be collated are part of a compression, and should therefore be grouped together as a single sort element.

The present system deals with building tables that can be used in order to identify or sort compressions. One embodiment sets up symbol tables that include a list of code points that uniquely identify one of the symbols, and a sort weight for each of the identified symbols. The compression tables include a compression type that identifies a number of symbols in a given compression, and compressions of symbols of that compression type. Each compression is a grouping of two or more symbols that is treated as a single sort element for purposes of linguistic sorting such that an order in the linguistic sorting is determined based on the type of a given compression, a first of the two or more symbols in the given compression, and a predefined order

of those symbols. Thus, for instance, the symbol tables have compressions that begin with the letter “D” sorted before those that begin with the letter “E”. Each compression that begins with “D” is also sorted based on the compression type (i.e., based on the number of symbols contained in the compression).

As discussed during the interview, the cited Lisle reference does not teach or suggest concepts related to compressions, where a compression comprises a group of two or more symbols treated as a single unit for purposes of linguistic sorting. Instead, when Lisle mentions the term “compression”, it is expressly speaking of data size reductions, from which the present claims have been expressly distinguished. To the extent that Lisle does not disclose “compressions” as explicitly recited in Applicant’s claims, Lisle has not been shown to disclose a plurality of compression tables each pertaining to a supportive language and having a particular compression type identifying a number of symbols in a given compression in the compression table.

Moreover, as discussed during the interview the cited references do not teach or suggest, either separately or in combination “for each code point in [a] symbol table,...identifying a highest compression type for compressions in [a] plurality of compression tables beginning with the symbol identified by the code point” or storing a tag for the code point to indicate the highest compression type where the tag is stored as a portion of the sort weight, as claimed. The cited Edberg reference does not teach or suggest an entry in a symbol table including a code point and a sort weight or a sort weight including at least two of a script member value, an alphabetic weight value, a diacritic weight value, and a case weight value for the linguistic symbol. Moreover, there is no teaching or suggestion in Edberg that a tag indicating a highest compression type is stored as part of the case weight value for the code point as recited in claim 1.

For at least these reasons, Applicant respectfully submits that independent claim 1 is neither taught, suggested, nor rendered obvious by the cited references and is in allowable form.

With respect to independent claim 6, Applicant respectfully submits that the cited references at least do not teach or suggest a plurality of compression tables, each compression

table having a compression type and containing compressions of symbols of that compression type as claimed. Moreover, as discussed during the interview the cited references also do not teach or suggest a symbol table constructed to contain a sort weight for a symbol where a tag indicating a highest compression type for the code point is stored as part of a case weight value for the code point.

For at least these reasons, Applicant respectfully submits that independent claim 6 is neither taught, suggested, nor rendered obvious by the cited references and is in allowable form.

With respect to independent claim 11, Applicant respectfully submits that the cited references at least do not teach or suggest, either separately or in combination, a plurality of compression tables containing compressions for a given language, referencing a symbol table to obtain a highest compression type for compressions beginning with said first symbol, or a tag stored as a portion of a sort weight for the first letter and identifies the highest compression type, as claimed. Moreover, the cited references also do not teach or suggest “wherein the plurality of compression tables are searched in a descending order of compression types of the compression tables starting with a compression table having a compression type equal to said highest compression type for said first letter”, as claimed.

For at least these reasons, Applicant respectfully submits that independent claim 11 is neither taught, suggested, nor rendered obvious by the cited references and is in allowable form.

Further, Applicant submits that related dependent claims 2, 5, 7, 10, 12-17 and 25-29 are also in allowable form at least based on their relation to independent claims 1, 6, and 11, discussed above.

Conclusion

The foregoing remarks are intended to assist the Office in examining the application and in the course of explanation may employ shortened or more specific or variant descriptions of some of the claim language. Such descriptions are not intended to limit the scope of the claims; the actual claim language should be considered in each case. Furthermore, the remarks are not to be considered exhaustive of the facets of the invention, which are rendered patentable, being only

example of certain advantageous features and differences, which Applicant's Attorney chooses to mention at this time. For the foregoing reasons, Applicant reserves the right to submit additional evidence showing the distinction between Applicant's invention to be unobvious in view of the prior art.

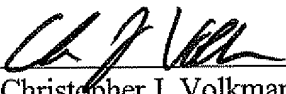
Furthermore, in commenting on the references and in order to facilitate a better understanding of the differences that are expressed in the claims, certain details of distinction between the same and the present invention have been mentioned, even though such differences do not appear in all of the claims. It is not intended by mentioning any such unclaimed distinctions to create any implied limitations in the claims.

In view of the foregoing, it is submitted that all pending claims are in condition for allowance. Reconsideration and allowance of the application are respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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